



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 –WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE
PALEN SOLAR POWER PROJECT
PALEN SOLAR I, LLC

DOCKET NO. 09-AFC-7

ERRATA TO THE PRESIDING MEMBER'S PROPOSED DECISION

We incorporate the following changes to the November 12, 2010 Presiding Member's Proposed Decision (PMPD):

INTRODUCTION

1. ***Page 3, paragraph 5, change "1140" to "1145."***

PROJECT DESCRIPTION

2. ***Page 2, first paragraph, change "200" to "240."***
3. ***Page 11, second paragraph, change as follows:***

Fire hydrants would be place at intervals throughout the project power block area of the site ~~that~~ and would be supplied with water from the supply loop.

4. ***Page 12, paragraph 3, second line, change "120,000" to "340,000."***
5. ***Page 13, paragraph 4, change "1140" to "1145."***
6. ***Page 15, second paragraph, fourth line, change "500" to "250."***

PROJECT ALTERNATIVES

7. ***Pages 12 and 15:***

Replace with Figures 2-2 and 2-3 attached to PSI's Opening Testimony, Project Description (Exhibit 57).

8. ***Page 39, insert the heading “RESPONSE TO COMMENTS” before “FINDINGS OF FACT,” followed by the following text:***

In its comments on the PMPD submitted November 29, 2010, intervenor CBD asserts that our approval of both Reconfigured Alternatives #2 and #3 constitutes an impermissible ceding of discretionary authority to the applicant. CBD does not explain, however, the basis for its assertion as it applies in this case, nor was it able to do so when queried at the December 2, 2010 Committee Conference. The two approved reconfigured alternatives are within the same site footprint and both have been determined to have similar impacts. They are not different projects. Our authorization of either configuration does nothing more than provide the applicant a degree of flexibility which may or may not be useful, depending upon the outcome of its negotiations with the owners of the small parcels of private land involved.

CBD’s other comments on alternatives are restatements of assertions made in its testimony and addressed in this Decision.

COMPLIANCE AND CLOSURE

9. ***Page 4, Compliance Manager Responsibilities, add the following paragraph at the end:***

The CPM may accept and approve compliance submittals that provide sufficient detail to allow construction activities to commence without the submittal containing detailed information on construction activities that will be commenced later in time.

TRANSMISSION SYSTEM ENGINEERING

10. ***Page 1, paragraph 4, line 3, change “double” to “single.”***
11. ***Page 7, Condition of Certification TSE-1, verification, first line, add “of the transmission facilities” after “construction.”***
12. ***Page 11, paragraph 2, verification to Condition of Certification TSE-5: delete item 6.***

GREEN HOUSE GAS EMISSIONS

13. Page 1, paragraph 3, delete and replace with the following:

SB 1368, enacted in 2006, and regulations adopted by the Energy Commission and the Public Utilities Commission pursuant to the bill, prohibits California utilities from entering into long-term commitments with any base load facilities that exceed the Emission Performance Standard of 0.500 metric tonnes CO₂ per megawatt-hour (1,100 pounds CO₂/MWh). Specifically, the SB 1368 Emission Performance Standard (EPS) applies to base load power from new power plants, new investments in existing power plants, and new or renewed contracts with terms of five years or more, including contracts with power plants located outside of California. If a project, instate or out of state, plans to sell base load electricity to a California utility that utility will have to demonstrate that the project meets the EPS. Base load units are defined as units that operate at a capacity factor higher than 60 percent. As a renewable electricity generating facility, PSPP is determined by rule to be compliant with the SB 1368 EPS.

14. Page 2, paragraph 1, add the word “regulated” in the first sentence as follows:

The regulated greenhouse gases are carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFC), and perfluorocarbons (PFC). CO₂ emissions are far and away the most common of these emissions; as a result, even though the other GHGs have a greater impact on climate change on a per-unit basis, GHG emissions are often expressed in terms of “metric tons of CO₂-equivalent” (MTCO₂E₂e) for simplicity. (Ex. 300, p. C.1-74.)

15. Page 2, paragraph 3, bullet 1, add the words “and operation” as follows:

- ☐ Whether PSPP GHG construction and operation emissions will have significant impacts;

16. Page 3, paragraph 3, change as follows:

Senate Bill (SB) 1368 of 2006, and regulations adopted by the Energy Commission and the Public Utilities Commission pursuant to the bill, prohibits utilities from entering into long-term commitments with any base load facilities that exceed an Emission Performance Standard (EPS) of 0.500 metric tonnes of CO₂ per megawatt-hour (this is the equivalent of 1100 pounds CO₂/MWh). (Pub. Util. Code, § 8340 et seq.; Cal. Code Regs., tit. 20, § 2900 et seq.; CPUC D0701039.) Currently, the EPS is the only LORS that has the effect of limiting power plant GHG emissions. PSPP, as a renewable energy generation facility, is determined by rule to comply with the Greenhouse Gas Emission Performance Standard requirements of SB 1368 (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2903 [b][1]).~~PSPP is exempt from SB 1368 because it would operate at or below a 60 percent capacity factor.~~ (Ex. 300, p. C.1-74.)

17. Page 5, last paragraph, change the word “four” to “two” as follows:

For this solar project the primary fuel, solar energy, is greenhouse gas-free, but there are two propane-fired steam boilers for HTF freeze protection. (Ex. 318, p. C.1-2.) The proposed PSPP Project would cause GHG emissions from these propane-fired boilers, and gasoline and diesel fuel use in the maintenance vehicles, offsite delivery vehicles, staff and employee vehicles, the ~~two~~^{four} emergency fire water pump engines, and ~~two~~^{four} emergency generator engines. Another GHG emission source for this proposed project is SF₆ from electrical equipment leakage. (Ex. 300, p. C.1-79) Operations GHG emissions are shown in Staff’s **Greenhouse Gas Table 3**. All emissions are converted to CO₂-equivalent and totaled.

18. Page 14, Finding of Fact 8, add the word “equivalent” as follows:

The maximum annual equivalent CO₂ emissions from PSPP operation will be 14,818 MTCO₂E₂, which constitutes an emissions performance factor of 0.015 MTCO₂E₂ / MWh.

19. Page 14, Finding of Fact 9, delete and replace with the following:

PSPP is determined by rule to be compliant with the SB 1368 EPS.

20. Page 14, Finding of Fact 14, change as follows:

When it operates, PSPP will displace generation from ~~less efficient (i.e., higher heat-rate and therefore higher-GHG-emitting)~~ power plants.

21. Page 15, Conclusion of Law 8, change as follows:

The GHG emissions of any power plant must be assessed within the context of the entire electricity system on a case-by-case basis to ensure that the project will be consistent with applicable the goals and policies ~~enunciated above~~.

AIR QUALITY

22. Page 1, paragraph 1, change as follows:

Operation of the Palen Solar Power Project (PSPP or proposed project) will create combustion products and use certain materials containing hazardous compounds ~~materials~~ that could expose the general public and workers at the facility to potential health effects.

23. Pages 3 and 4, Air Quality Tables 1 and 2:

Change “PM_{2.5}” to “PM2.5.”

24. Pages 7 and 10, Air Quality Tables 4 and 6:

Replace the symbol □ with μ (meaning micro) in these tables.

25. Page 10 last paragraph, last line:

Change “68 pounds” to “68 pounds per day.”

26. Page 11, paragraph 2, change as follows:

We concur with the District’s revised determination that VOC offsets are required for the project to comply with the District’s New Source Review rule. VOC ERCs are the most abundant type of ERC in the SCAQMD offset bank and the Applicant should be able to obtain these ERCs in a timely manner (Ex. 317, p. C.1-6). The District will not provide the Permit to Construct for PSPP until the ERC sources are properly identified (purchased ERCs or right to purchase contracts for ERCs); therefore, we believe that this LORS issue will be properly satisfied by the District. Condition of Certification AQ-SC9 has been included so that staff will get a copy of the ERC identification provided to the District in order to obtain the Permit to Construct. ~~However, consistent with Staff’s finding for other projects that need District offsets, the final air quality findings for this project are tentative, pending the Applicant’s submittal of its ERC source, which can be purchased ERCs or right to purchase contracts for ERCs. (Ex. 317, p. C 1-8.)~~

27. Page 13, section 6, Compliance with LORS, change as follows:

The project is expected to comply with all relevant federal and state LORS. The SCAQMD issued a Preliminary Determination of Compliance (PDOC) for the PSPP on March 5, 2010, and later provided public notice with a 30 day comment period starting on April 15, 2010. The District then provided a Revised Determination of Compliance (RDOC) on October 21, 2010, that addressed comments received on the PDOC, and then provided an additional 30-day comment period. The District issued will issue a Final Determination of Compliance (FDOC) on December 1, 2010 after resolving issues raised by the public and agency comments. Compliance with all District rules and regulations was demonstrated to the District’s satisfaction in the ~~P~~FDOC. The District’s ~~P~~FDOC conditions are presented in the Conditions of Certification (**AQ-1 to AQ-51**) which we hereby adopt.

Staff submitted an official PDOC comment letter on March 24, 2010 and the District’s RDOC has adequately addressed Staff’s comments and Staff ~~had~~ has no additional substantive comments on the RDOC. ~~The FDOC may contain revisions to conditions due to Applicant or third party comments. Staff will provide the revised FDOC findings or Conditions of Certification in a supplement after receipt of the FDOC.~~

28. Page 14, Finding of Fact 9, change as follows:

9. The South Coast Air Quality Management District~~Mojave Desert Air Quality Management District~~ issued a Final Revised~~Preliminary~~ Determination of Compliance on

~~December 1~~ ~~March 5~~, 2010, imposing conditions of compliance on project construction and operation to ensure compliance with District Rules and Regulations. These Rules and Regulations are incorporated into the Conditions of Certification below.

29. Page 14, delete Finding of Fact 10.

30. Page 23, Condition of Certification AQ-SC11, change as follows:

AQ-SC11 The project owner shall use one of the following four options to assure that the operation of the emergency engines will not cause an exceedance of the state or federal 1-hour NO₂ ambient air quality standards:

- 1) The project owner shall provide an air dispersion modeling analysis that demonstrates to Staff's satisfaction that the currently proposed or officially revised worst-case operating emissions would not have the potential to cause exceedances of the state or federal 1-hour NO₂ ambient air quality standards, or
- 2) The project owner shall procure emergency generator engines that meet ARB Tier 4 standards for NOx emissions (0.5 grams per ~~brake~~~~break~~ horsepower), or
- 3) In the event that Tier 4 engines are not available at the time of engine purchase, the project owner shall; a) provide documentation from engine manufacturers that Tier 4 engines are not available; and b) procure emergency engines that have a NOx emissions guarantee of no more than 2.6 grams per ~~brake~~~~break~~ horsepower, or
- 4) The project owner shall agree to limit the emergency generator engine testing duration to no more than 30 minutes per event and a testing frequency limited to the minimum required by engine manufacturer.

In no event shall the project owner propose the use of an emergency engine that does not meet the most strict applicable federal or state engine emission limit regulation without a signed waiver from U.S. EPA or ARB as appropriate. The project owner shall justify the date of engine purchase.

Verification: The project owner shall provide to the CPM the air dispersion modeling analysis, if performed, that demonstrates compliance with Part 1) of this Condition at least 30 days prior to purchasing the emergency engine generators for this project, or shall provide documentation to the CPM at least five days prior to purchasing the engine generators that demonstrates how they would comply with Part 2), or Part 3), or Part 4) of this Condition.

31. Page 24, add Condition of Certification AQ-SC12:

AQ-SC12 For the aboveground gasoline storage tank, the project owner shall comply with South Coast Air Quality Management District Rule 461 and Air Resources Board Executive Orders (EOs) otherwise applicable to storage tanks larger than 250 gallons and-shall:

- a. Ensure that the above ground gasoline storage tank installed is no larger than 250 gallons in storage capacity and that the tank and associated fuel dispensing unit is equipped with appropriate Phase I and Phase II ARB vapor recovery systems otherwise applicable under District Rule 461 to storage tanks larger than 250 gallons at the time of installation.
- b. Maintain onsite a list of the SCAQMD Rule 461 and ARB EO design, testing, and other requirements applicable at the time of purchase to storage tanks larger than 250 gallons, including vapor recovery system.
- c. Maintain onsite a log of all inspections, repairs, tests, and maintenance on equipment subject to the requirements specified in part (b) above. Such logs or records shall be maintained at the facility for at least two (2) years and available upon request.

Verification: No later than 30 days prior to purchasing the above ground storage tank and its components, the project owner shall provide to the CPM for approval the final tank and vapor recovery system design specifications and a list of applicable Rule 461 and EO design, testing, and other requirements, including specifications for the vapor recovery equipment. The project owner shall also provide gasoline throughput records in the Annual Compliance Report and shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.

32. Page 25, Condition of Certification AQ-4, change as follows:

AQ-4 The project owner shall conduct an initial source test(s) for the pollutant(s) identified below.

Pollutant to be Tested	Required Test Method(s)	Averaging Time	Test Location
NOx emissions	District Method 100.1	1 hour	Stack
CO emissions	District Method 100.1	1 hour	Stack
SOx emissions	Approved District method	District approved averaging time	Fuel Sample
VOC emissions	Approved District method	1 hour	Stack
PM10 emissions	Approved District method	District approved averaging time	Stack

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test. The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (gallons/hour), and the flue gas flow rate.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the ~~boiler~~turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at maximum, ~~average~~, and minimum loads.

Verification: The project owner shall provide a source test protocol to the District for approval and CPM for review at least 45 days prior to the first source test. The project owner shall notify the District and the CPM within 10 working days before the execution of the source test required in this Condition. The test shall be conducted within 180 days after initial start-up and the test results shall be submitted to the District and to the CPM within 60 days after test was conducted.

33. Pages 26 and 27, Condition of Certification AQ-8, change as follows:

AQ-8 The project owner shall provide to the AQMD a source test report in accordance with the following specifications:

- ☐ Source test results shall be submitted to the AQMD no later than 60 days after the source test was conducted.
- ☐ Emission data shall be expressed in terms of concentration (ppmv) corrected to three percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/DSCF.
- ☐ All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).
- ☐ All moisture concentration shall be expressed in terms of percent corrected to three percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (gallon per hour~~GFH~~), the flue gas temperature.

Verification: None required.

34. Page 28, Condition of Certification AQ-13, change as follows:

AQ-13 The project owner shall limit emissions from this equipment as follows:

Contaminant	Emission Limit
PM-10	639 lbs in any one year
NOx	709 lbs in any one year
SOx	722 lbs in any one year

Verification: —————The project owner shall calculate the ~~yearly~~monthly emissions for NOx, PM10 and SOx using the equation below and the following emission factors: NOx: 1.02 lb/1,000 gal; PM10: 0.92 lb/1,000 gal; and SOx:1.03 lb/1,000 gal.

Yearly Emissions, lb/year = X (E.F.)

where X = yearly fuel usage in 1,000 gal/year and

E.F. = emission factor indicated above.

For the purpose of this Condition, the yearly emission limit shall be defined as a period of 12 consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

Verification: As part of the Annual Compliance Report, the project owner shall include information demonstrating compliance with the boiler operating emission rates.

35. Page 28, Condition of Certification AQ-14, change as follows:

The project owner shall limit emissions from this equipment as follows:

Contaminant	Emission Limit
PM10	53 lbs in any one month
NOx	59 lbs in any one month
SOx	60 lbs in any one month
VOC	27 lbs in any one month

Verification: —————The project owner shall calculate the monthly emissions for NOx, VOC, PM10 and SOx using the equation below and the following emission factors: NOx: 1.02 lb/1,000 gal; VOC: 0.46 lb/1,000 gal; PM10: 0.92 lb/1,000 gal; and SOx: 1.03 lb/1,000 gal.

Monthly Emissions, lb/month = X (E.F.)

where X = monthly fuel usage in 1,000 gal/month and

E.F. = emission factor indicated above.

Verification: As part of the Annual Compliance Report, the project owner shall include information demonstrating compliance with the boiler operating emission rates.

36. Page 29 and 30, Condition of Certification AQ-21, change as follows:

AQ-21 This engine shall not be operated more than 200 hours in any one year, which includes no more than 50 hours per year and ~~4.2 hours per month~~ one hour per week for maintenance and testing as required in Rule 1470(c)(2).

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

37. Page 31, Condition of Certification AQ-27, change as follows:

AQ-27 This engine shall not be operated more than 200 hours in any one year, which includes no more than 50 hours per year and ~~4.2 hours per month~~ one hour per week for maintenance and testing as required in Rule 1470(c)(2).

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

38. Page 33, Equipment Description, change as follows:

Application No. 506829 and 506833 (Solar Thermal Power Generation ~~Ullage, Expansion Tank, Overflow Tank, and HTF Piping Systems~~)

EQUIPMENT DESCRIPTION:

Solar thermal power generating system no. 1 and 2, each consisting of:

1. Solar parabolic mirrors
2. One ullage system, consisting of distillation columns and pressure vessels vented to activated carbon adsorption system no. 1 and 2 described by a/n 506830 and 506835
3. Eight expansion vessels, each with a capacity of 151,915 gallons, vented to activated carbon adsorption system no. 1 and 2 described by a/n 506830 and 506835
4. Heat transfer fluid (~~HTF~~~~htf~~) piping
5. Steam turbine
6. Electrical generator, 250 MW~~mw~~

39. Page 35, Condition of Certification AQ-35, change as follows:

The following component count shall be used to determine the fugitive VOC emissions.

Equipment	Count (per unit)
Valves	1,969
Pump Seals	9
Connectors	2,091

Verification: —————The project owner shall provide AQMD with a final component count within 90 days of completion of construction.

Verification: The project owner shall provide the District and the CPM the final HTF piping component count within 90 days of completion of construction, and shall keep a record of changes in the component count in the inspection and maintenance program documentation kept at the site.

40. Page 36, Condition of Certification AQ-42, change as follows:

AQ-42 The project owner shall monitor and test the ~~ullage system~~ heat transfer fluid (HTF) on a quarterly basis for HTF contamination in accordance with the procedures outlined in the Therminol analytical evaluation guidelines provided by the manufacturer. The ullage system shall be operated whenever the percentage of total contaminants in the HTF sample reaches a maximum of two percent by volume.

Verification: As part of the Annual Compliance Report the project owner shall include a summary of the quarterly HTF test results required by this Condition and a corresponding summary of the periods of HTF ullage system venting operation to show compliance with this Condition.

41. Pages 37 and 38, Condition of Certification AQ-43, change as follows:

AQ-43 The project owner shall measure VOC emissions three-inches above the soil surface on a weekly basis using a flame ionization detector (FID) or photo-ionization detector (PID) or other device approved by the Executive Officer. The project owner shall maintain written records of weekly VOC emissions from the bio-remediation unit during periods when the unit is in operation. The project owner shall submit a written protocol to the Executive Officer to incorporate the proposed monitoring, reporting and recordkeeping requirements for the bio-remediation unit to be reviewed and approved by AQMD staff prior to initial operation of the bio-remediation unit.

- a. During operation, if the soil in the bio-remediation unit results in a VOC reading of more than 50 ppmv calibrated as methane and measured 3 inches above the soil surface with a PID, FID, or other

AQMD approved device, the bio-remediation unit shall be covered with a minimum of 10-mil plastic sheeting to control VOC emissions.

- b. If the soil in the bio-remediation unit registers an organic matter concentration ~~VOC reading~~ of less than 1,000 ppm~~wv~~ ~~calibrated as methane and measured three inches above the soil surface with a PID, fid, or other AQMD approved device~~, the project owner shall use naturally occurring soil bacteria or enhanced bioremediation procedures to treat the HTF contaminated soil. ~~During operations, the bioremediation unit shall be covered with a minimum of 10-mil plastic sheeting to control VOC emissions.~~
- c. If the soil in the bio-remediation unit registers an organic matter concentration ~~VOC reading~~ of greater than or equal to 1,000 ppm~~wv~~ and but less than or equal to 10,000 ppm~~wv~~, the project owner shall use enhanced bio-remediation procedures to treat the HTF contaminated soil using accepted environmental engineering practices. Soil stockpiles shall be conditioned as necessary through the addition of nutrients, moisture, and air, to maintain conditions suitable for bio-remediation operations. ~~During operations, the bioremediation unit shall be covered with a minimum of 10-mil plastic sheeting to control VOC emissions.~~
- d. If the soil in the bio-remediation unit registers a VOC reading of greater than 10,000 ppm~~wv~~, the project owner shall store the contaminated soil in sealed containers while onsite. The project owner shall dispose of the HTF contaminated soil at an off-site facility ~~landfill~~ suitable for disposal of such materials.
- e. If the bio-remediation operation is not effective after 6 ~~two~~ months of continuous operation, the project owner shall submit another written protocol to propose an alternate method of soil remediation for approval by the Executive Officer.

Verification: The project owner shall provide a written protocol to incorporate the proposed monitoring, reporting and recordkeeping requirements to the District for approval and CPM for review prior to initial operation of the bio-remediation unit, and shall provide the CPM a summary of the monitoring results and other actions taken to comply with this Condition in the Annual Compliance Report.

42. Page 38, Equipment Description, change as follows:

Application No. 506830 and 506835 (Air Pollution Control Systems (Activated Carbon Adsorption System))

EQUIPMENT DESCRIPTION:

Activated carbon adsorption system no. 1 and 2, each with two canisters in series, total capacity 4,000 pounds, venting ~~eight~~the expansion vessels and one ullage system described by a/n 506829 and 506833.

43. Pages 38 and 39, Condition of Certification AQ-46, change as follows:

AQ-46 The project owner shall monitor for breakthrough between the first and second carbon beds while the carbon system is in use using an OVA or other monitoring device as approved by the Executive Officer. Breakthrough shall occur when the OVA or other approved monitoring device shows a VOC concentration of 5 ppmv or greater, measured as methane, downstream of the first carbon bed. The carbon in the first bed shall be replaced with fresh carbon at least five times per month as necessary or at the occurrence of breakthrough, whichever comes first, prior to occurrence of breakthrough in the second carbon bed.

Verification: The project owner shall provide a summary of the carbon bed monitoring data as part of the Annual Compliance Report and shall submit tests to the District as required in this Condition.

44. Page 39, Condition of Certification AQ-51, change as follows:

AQ-51 A written report of the source test results shall be submitted to the Executive Officer within 60 days after the test is completed and shall contain, at a minimum, the VOC concentration, in ppm, at the inlet to the first carbon bed, between the first and second carbon bed, and at the outlet from the second bed, speciated for benzene. The test report shall include the overall control efficiency for the carbon adsorption system.

Verification: A summary of the source test results shall be submitted to the CPM within 60 days, or at the same time as the full test report is submitted to the District if later and allowed by the District, after source test completion.

WORKER SAFETY/FIRE PROTECTION

45. Page 13, Condition of Certification WORKER SAFETY-6, change as follows:

WORKER SAFETY-6 The project owner shall:

- A. Provide a secondary site access gate for emergency personnel to enter the site. This secondary site access gate shall be at least one-quarter mile from the main gate.
- B. Provide a second access road which provides entry to the site. This road shall be at a minimum an all-weather gravel road, at least 20 feet wide, and shall come from the Interstate-10 right-of-way to the project site at the location of where the fence line of the eastern solar field comes the nearest to the I-10 right-of-way. If approved by Caltrans, A locked gate shall be placed in the I-10 right-of-way fence. The RCFD, the California Highway Patrol, and the Riverside County Sheriff's Department shall be given access to the gate.
- C. Maintain the main access road and the second access road and provide a plan for construction and implementation.

Plans for the secondary site access gate, the method of gate operation, secondary gravel road, the gate at the I-10 right-of-way if approved by Caltrans, and to maintain maintenance of the roads shall be submitted to the Riverside County Fire Department for review and comment and to the CPM for review and approval.

Verification: At least 60 days prior to the start of site mobilization, the project owner shall submit to the RCFD and the CPM preliminary plans showing the location of a secondary site access gate to the site, a description of how the secondary site access gate will be opened by the fire department and other emergency services, and a description and map showing the location, dimensions, and composition of the main road, and the gravel road to the secondary site access gate.

At least 30 days prior to the start of site mobilization, the project owner shall submit the secondary site access gate final plans plus the road maintenance plan to the CPM for review and approval. The final plan submittal shall also include a letter containing comments from the Riverside County Fire Department or a statement that no comments were received.

At least 30 days after approval by Caltrans, the project owner shall submit final plans for the gate in the I-10 right-of-way to the Riverside County Fire Department for review and comment and to the CPM for review and approval.

- 46. Page 15, Condition of Certification WORKER SAFETY-9, item C, delete and replace with the following:**

- C. Implementation of enhanced dust control methods (increased frequency of watering, use of dust suppression chemicals, etc. consistent with **AQ-SC4**) immediately whenever visible dust persists in the breathing zone of the workers, or when PM10 measurements obtained when implementing ii (above) indicate an increase in PM10 concentrations due to project activities of 50 µg/m³ or more.

HAZARDOUS MATERIALS MANAGEMENT

- 47. Page 3, lines 4 – 8, change as follows:**

On this basis Staff suggested but did not propose a Condition requiring that the project use natural gas as a safer alternative to firing the auxiliary boilers because as noted by staff, the applicant has proposed, along with staff, many safety features that reduce the risk of the use of LPG to a less than significant level. (Ex. 301, p. C.4-7.) ~~Nevertheless,~~ We have incorporated in our Conditions of Certification many those safety features that reduce the risk of the use of LPG to a less than significant level. (Ex. 301, p. C.4-8.)

WASTE MANAGEMENT

- 48. Page 15, Condition of Certification WASTE-9, first paragraph, add the following as the final sentence:**

For the purpose of this Condition of Certification, “release” shall have the definition in Title 40 of the Code of Federal Regulations, Part 302.3.

BIOLOGICAL RESOURCES

- 49. Page 6, first paragraph, change as follows:**

Unvegetated dry washes include numerous smaller streams consisting largely of compound channels with highly variable flow pathways contained within broad floodplains. Vegetative cover is typically sparse and consists primarily of mixed upland and wash-dependent shrubs and herbs, with widely scattered and small-statured individual ironwood trees. These ephemeral streams provide movement corridors for small and large mammals, and provide a seasonal water source not available in the surrounding dry uplands. (Ex.301, p. C.2-24.)

50. Page 7, Groundwater-Dependent Vegetation Communities, fourth sentence, change as follows:

A number of GDEs were observed or documented to occur locally and could potentially be affected by proposed groundwater pumping within the proposed Project site. ~~-, although none of these extend into the associated disturbance areas (with discussion of potential impacts to GDEs from proposed groundwater pumping provided below under Item 3, Direct/Indirect Impacts and Mitigation).~~

51. Page 7, Groundwater-Dependent Vegetation Communities, last sentence, change as follows:

The phreatophytes known to occur in the Project area are mostly "facultative phreatophytes", or ~~plants that function as phreatophytes when unlimited water is available, but that can also survive on sites with limited water~~ deep rooted plant species that tap into groundwater to satisfy at least some portion of their environmental water requirement, but will also inhabit areas where their water requirements can be met by soil moisture reserves alone.

52. Page 24, second paragraph, change as follows:

In addition to the above measures, Condition of Certification **BIO-28** provides a potential option to satisfy the requirements of Condition of Certification **BIO-12**, through provision of appropriate funding to an approved in-lieu fee program rather than the Renewable Energy Action Team (REAT) in lieu of direct property acquisition by the Project owner.

53. Page 29, last paragraph, change as follows:

Potential impacts to the American badger and desert kit fox from the proposed Project and Reconfigured Alternatives 2 and 3 would include the loss of foraging and denning habitat, fragmentation and degradation of adjacent habitat, crushing or entombing of animals in dens, and disturbance/harassment of individuals (refer to Tables 4 through 6 for associated impact acreages from the proposed Project and Reconfigured Alternatives 2 and 3).- The previously identified impacts to the American badger and kit fox would be offset by implementation of the previously described Condition of Certification **BIO-12**, as well as ~~These potential impacts would be addressed through proposed Condition of Certification **BIO-17**, which requires that a qualified biologist conduct pre-construction surveys for badger and kit fox dens concurrent with desert tortoise surveys (including areas within 250 feet of all Project facilities, utility corridors, and access roads). The evidence indicates that implementation of the noted measure would reduce potential direct and indirect impacts to American badgers and desert kit foxes from the proposed Project and Reconfigured Alternatives 2 and 3 to less than significant levels. (Ex. 301, pp. C.2-113, C.2-150 – C.2-155.)~~

54. Page 34, second paragraph, change as follows:

The identified potential direct and indirect impacts to special-status plant species from the proposed Project or Reconfigured Alternatives 2 and 3 would be addressed through proposed Conditions of Certification, including the previously described **BIO-8**, **BIO-14**, and **BIO-20** through **BIO-24**, as well as **BIO-19** and **BIO-29**. Specifically, **BIO-19** includes requirements for: (1) impact avoidance and compensatory mitigation relative to special-status plants; and (2) late-season surveys in summer-fall 2010 to ensure that any plants missed during the spring surveys would be detected and associated potential impacts identified/mitigated. The applicant's botanists conducted complete late-season botanical surveys in the Project area on October 11, 2010 through October 15, 2010. Summer/fall annual plant species were detected in bloom and/or fruit within and in the vicinity of the Project, confirming that late season surveys were being conducted at the appropriate time, but no special-status plant species were detected in the Project area during the October 2010 surveys (Ex. 64, p. 1). ~~Triggers and performance standards for mitigation of impacts are also included to ensure that impacts to any special-status plants found during the late season surveys are appropriately addressed.~~ The evidence indicates that implementation of the noted measures would reduce potential direct and indirect impacts to special-status plant species from the proposed Project or Reconfigured Alternatives 2 and 3 to less than significant levels. (Exs. 301, pp. C.2-119 - C.2-138, C.2-152, C.2-155; 303, pp. 16 - 17.)

55. Page 49, first paragraph, change as follows

Total impacts to Le Conte's thrasher and other special-status or migratory bird habitat from the cumulative projects would be approximately 300,139 acres in the NECO planning area, or approximately 8.1 percent of the total habitat area. While contributions to these impacts from the proposed Project or Reconfigured Alternatives 2 and 3 are generally minor (approximately 1 percent or less), they are considered, at least incrementally, cumulatively considerable. A number of measures were identified to address impacts to Le Conte's thrasher and other special-status or migratory bird habitat from the proposed Project or Reconfigured Alternatives 2 and 3, including Conditions of Certification **BIO-8**, **BIO-15**, **BIO-16**, **BIO-21**, **BIO-23** and **BIO-24**. The evidence indicates that, with the incorporation of these mitigation measures, the contributions to Le Conte's and other special-status or migratory bird habitat loss impacts from the proposed Project or Reconfigured Alternatives 2 and 3 would not be cumulatively considerable. (Ex. 301, pp. C.2-89, C.2-188 and C.2-189.)

56. Page 53, first paragraph, change as follows:

The proposed Project or Reconfigured Alternatives 2 and 3 are expected to contribute to a cumulative reduction in greenhouse gases, although these benefits must also be weighed against the potential loss of carbon sequestration benefits from the desert vegetation and biological soil crusts. New evidence suggests that alkaline desert soils may confer even greater sequestration benefits than soil crusts. In order to build the PSPF facility under either the proposed Project or Reconfigured Alternatives 2 and 3,

these plants and biotic soil crusts would be damaged and destroyed, and the sequestered carbon would be released back into the atmosphere. Based on these considerations, staff has concluded that these impacts of the proposed Project or Reconfigured Alternatives 2 and 3 may contribute to be cumulatively considerable loss of sequestration benefits and release of stored carbon from all past, present, and probable future projects. (Ex. 301, p. C.2-139). A number of previously identified biological resource measures would address potential contributions to cumulative impacts from the loss of sequestration benefits from the proposed Project or Reconfigured Alternatives 2 and 3. Specifically, these include Conditions of Certification **BIO-8, BIO-12, BIO-19, BIO-20, BIO-21** and **BIO-22**. The evidence indicates that, with the incorporation of these mitigation measures, contributions to the cumulative loss of carbon sequestration benefits from the proposed Project or Reconfigured Alternatives 2 and 3 would not be cumulatively considerable. (Ex. 301, p. C.2-208.)

57. Page 56, Finding of Fact #16, change as follows:

Conditions of Certification **BIO-8, BIO-12, BIO-15, and BIO-16, and BIO-20** would reduce direct and indirect impacts to migratory/special-status bird species from the proposed Project and Reconfigured Alternatives 2 and 3 below a level of significance.

58. Page 56, Finding of Fact #17, change as follows:

16. Conditions of Certification **BIO-12 and BIO-17** would reduce direct and indirect impacts to the American badger and desert kit fox from the proposed Project and Reconfigured Alternatives 2 and 3 below a level of significance.

59. Page 56, Finding of Fact #20, change as follows:

20. Conditions of Certification **BIO-8, and BIO-14, and BIO-21** would reduce Project-related direct and indirect impacts to native (but non-special-status) cacti, succulents and trees from the proposed Project and Reconfigured Alternatives 2 and 3 below a level of significance.

60. Page 86, Condition of Certification BIO-14, add the following text at the end of item 1:

weeds or the spread of highly invasive species, such as Sahara mustard. Non-native species with low ecological risk, or that are very widespread, such as Mediterranean grass, shall be noted but control shall not be required. When detected, infestations of high priority species shall be eradicated immediately.

61. **Page 93, Condition of Certification BIO-18, delete the words “78 acres of” in five places.**

SOIL AND WATER RESOURCES

62. **Page 3, first paragraph, change as follows:**

The evidence shows that Project-related erosion impacts are potentially significant. Accordingly, a Drainage Erosion and Sedimentation Control Plan (DESCP) is proposed to address potential Project-related wind and water erosion impacts. ~~The Project would also implement a Storm Water Pollution Prevention Plan (SWPPP) under National Pollutant Discharge Elimination System (NPDES) requirements to address (among other concerns) potential erosion. Both of these plans~~ This plan would include applicable measures, such as best management practices (BMPs), to identify, avoid/reduce, monitor, and document potential erosion and sedimentation effects from the PSPP Project.

63. **Page 18, first two sentences, change as follows:**

The Project applicant proposes to implement appropriate BMPs for managing potential construction-related impacts to surface water quality. This would include implementing applicable elements of the DESCP required under previously described Conditions of Certification **SOIL & WATER-1, HAZ-1 and HAZ-2**, ~~as well as conformance with related SWPPP requirements under the NPDES.~~

64. **Page 18, first paragraph, change as follows:**

Potential impacts to surface water quality during Project operation include erosion and increases in sediment loads to adjacent washes; accidental spills of hydrocarbon fuels and greases (including HTF fluid); and accidental releases from the LTU and evaporation ponds (refer to the above discussion under Item 6, Groundwater Quality, for additional description of the LTU and evaporation pond facilities). Potential erosion and sedimentation impacts during Project operation would be addressed through applicable elements of previously described Condition of Certification SOIL & WATER-1. Potential impacts related to accidental spills and releases would be managed through: (1) appropriate Project design features (e.g., providing two feet of freeboard in evaporation ponds to minimize potential overtopping during larger storm events); (2) hazardous materials management requirements (refer to the Hazardous Materials Management section of this Decision); and (3) ~~conformance with applicable NPDES/SWPPP requirements; and~~ (4) implementation of pertinent elements of previously described Condition of Certification SOIL & WATER-6.

65. Page 26, Finding of Fact No. 2, change as follows:

Implementation of Reconfigured Alternatives #2 or #3, and adherence to the procedures in Conditions of Certification **SOIL & WATER-1** (including the construction DESCP) and **SOIL & WATER-8** through **SOIL & WATER-12**, ~~as well as related NPDES/SWPPP requirements,~~ will avoid significant soil erosion and subsequent sedimentation during construction and operation, conserve soil resources, maintain water quality, and prevent accelerated soil loss.

66. Page 42, Condition of Certification SOIL&WATER-9, add an “=” sign as follows:

A set of figures shall be provided at a scale of no less than 1 inch \equiv 200 feet which show the extent and depths of flows entering the North, South and West channels for the 100-year event. A figure at the same scale shall also be provided for depth, velocity and the relative change in these parameters at and downstream of the four end diffuser structures for the 10-, 25- and 100-year events. Digital input and output files associated with the FLO-2D analysis must be included with all submittals. The results of this analysis shall be used for design of the 30% project grading and drainage plans.

67. Page 51, Condition of Certification SOIL&WATER-14, last sentence, change “models” to “model” as follows:

The use of an appropriately constructed groundwater model 1.) for the eastern portion of the Chuckwalla Valley Groundwater Basin that describes the affect from Project pumping on the outflow of groundwater to the Palo Verde Valley, and 2.) an appropriately constructed groundwater model of the Palo Verde Valley, inclusive of the mesa and floodplain. The models shall be coupled as appropriate to determine the effect from Project pumping on the surface water recharge in the Palo Verde Valley. Each models shall be constructed in consideration of the following:

CULTURAL RESOURCES

68. Page 1. third paragraph, change “Historica” to “Historical:”

When a cultural resource is determined to be significant, it is eligible for inclusion in the California Register of Historical Resources (CRHR). (Pub. Res. Code, § 5024.1; Cal. Code Regs., tit. 14, § 4850 et seq.) An archaeological resource that does not qualify as an historical resource may be considered a “unique” archaeological resource under California Environmental Quality (CEQA) (see Pub. Res. Code, § 21083.2.)

69. Page 36. Condition of Certification CUL-3, first paragraph, change as follows:

Prior to the start of ground disturbance (includes “preconstruction site mobilization,” “construction-related ground disturbance,” and “construction-related grading, boring, and trenching,” as defined in the General Conditions for this project), the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternate CRSs, if alternates are needed. The CRS shall manage all monitoring, mitigation, curation, and reporting activities in accordance with the Conditions of Certification (Conditions).

70. Page 47. Condition of Certification CUL-9, first paragraph, first sentence, change as follows:

The project owner shall grant authority to halt ground disturbance to the CRS, alternate CRS, PPA, PHA, ~~PTNCL Geoarchaeologist (PG)~~, if retained, ~~PE~~, and the CRMs in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS.

71. Page 48. Condition of Certification CUL-9, Verification, clause 1, change as follows:

At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, PPA, PHA, ~~PG~~, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.

72. Page 49. Condition of Certification CUL-11, second paragraph, change as follows:

The plan shall also specify in detail the location recordation equipment and methods used and describe any post-processing of the data. If allowed by the BLM, prior to the start of ground disturbance within 30 meters of the site boundaries of each of these sites, the project owner shall ensure that the CRS, ~~the PSSA~~, the PPA, and/or archaeological team members implement the plan, which, for sites where CARIDAP does not apply, shall include, but is not limited to the following tasks:

73. Page 53. Condition of Certification CUL-13, first paragraph, change as follows:

Prior to the start of ground disturbance, the project owner shall ensure that a recovery plan is included in the CRMMP for upgrading the recordation of 34-historic-period refuse scatter sites located on the proposed plant site. For Reconfigured Alternative # 3, these consist of sites (SMP-H-1003, SMP-H-1004, SMPH--1006, SMP-H-1008, SMP-H-1009, SMP-H-1010, SMP-H-1011, SMP-H-1012, SMP-H-1013, SMP-H-1020, SMP-H1021, SMP-H--1022, SMP-H-1023, SMP-H-2002, SMP-H-2003, SMP-H-2004, SMPH--2006, SMP-H-2007, SMP-H-2008, SMP-H-2010, SMP-H-2011/12, SMP-H-2017, SMP-H-2019, SMP-H-2021; JR-101, JR-102, JR-104, JR-107, JR-109, JR-110; TC-008, TC--009, TC-020, and TC-032, all of which are located on the proposed plant site, is included in the CRMMP. For Reconfigured Alternative #2, the sites requiring upgraded recordation consist of the same sites as Reconfigured Alternative #3 plus site JR-107. These site lists may be revised only with the agreement of the CRS and the CPM.

74. Page 54. Condition of Certification CUL-13, number 4, change as follows:

The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any man-made features, the limits of any artifact concentrations and features ~~(previously known and newly found in the metal detector survey)~~, using location recordation equipment that has the latest technology with sub-meter accuracy (such as UTM 11 North or California Teale Albers).

75. Page 54. Condition of Certification CUL-13, number 6, part b, change as follows:

The letter report shall be a concise document ~~the~~ that provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms.

76. Page 55. Condition of Certification CUL-13, Verification, clause 1, change as follows:

At least 45 days prior to ground disturbance, the project owner shall notify the CPM that mapping and upgraded in-field artifact analysis has ensued on ~~six~~ the historic-period refuse scatter sites.

77. Page 55. Condition of Certification CUL-14, first paragraph, change as follows:

Prior to the start of ground disturbance, the project owner shall ensure that a data recovery plan is developed for historic-period archaeological sites with features is included in the CRMMP for evaluation and data recovery from historic-period archaeological sites with features. For Reconfigured Alternative #3, these sites consist of sites SMP-H-1005, SMP-H-1007, SMP-H-2016). For Reconfigured Alternative #2, these sites are consist of the same sites as Reconfigured Alternative #3, plus site JR-108. Thisese site lists may be revised only with the agreement of the CRS and the CPM. The plan shall specify in detail the location recordation equipment and methods to be used and describe any anticipated post-processing of the data. The project owner shall then ensure that the CRS, the PHA, and/or archaeological team members implement the plan, if allowed by the BLM, which shall include, but is not limited to the following tasks:

78. Page 57. Condition of Certification CUL-14, number 8, part b, change as follows:

The letter report shall be a concise document ~~the that~~ provides a description of the schedule and methods used in the field effort, a preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and a map showing the location of collection and/or excavation units, including topographic contours and the site landforms.

79. Page 57. Condition of Certification CUL-14, number 8, part c, change as follows:

The letter report shall make a recommendation on whether each site is a contributor to the ~~DTTCL~~DTCCCL.

80. Page 57. Condition of Certification CUL-14, number 10, change as follows:

The project owner shall ensure that the PHA analyzes all recovered data and writes or ~~supervises~~ supervises the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-6**). Relevant portions of the information gathered shall be included in the possible NRHP nomination for the DTCCCL (funded by **CUL-2**).

LAND USE

- 81. Page 15, insert the heading “RESPONSE TO COMMENTS” before “FINDINGS OF FACT,” followed by the following text:**

In its comments on the PMPD submitted November 29, 2010, intervenor CBD asserts that the project site is within lands protected under various federal, state and local laws, and that we have failed to find both that the project, as mitigated, will not adversely impact those lands and that the approval of the agency having jurisdiction over such lands has been obtained. In making the first assertion CBD apparently has overlooked our discussions in this Land Use section concerning the project’s LORS compliance and consistency with applicable land use plans, policies and regulations.

As for the matter of approval of the agency having jurisdiction over the site, it is undisputed and a matter of public record that the applicant has applied for a Right-of-Way grant from the BLM. Obviously, the applicant’s ability to construct the project is dependent upon the receipt of such grant. Whether BLM makes its determination before, simultaneously with, or after the issuance of this Decision is of no consequence. Section 1752(f) of our regulations requires a finding that the approval of the agency having jurisdiction has been obtained in order to ensure that we do not allow construction of a project without approval of the other agency. With the BLM approval process running concurrently with ours, there is no danger of that happening. Applicant cannot construct the project without BLM’s right of way grant. If BLM grants the right of way, approval of the other agency has been obtained and the project may be constructed. If BLM denies the right of way grant, the project may not be constructed despite our approval.

We are adding language to Condition of Certification **LAND-1**, to require that the applicant submit to the Construction Project Manager, prior to the start of construction, documentation of the Right-of-Way grant as well as a copy of the U.S. Bureau of Land Management (BLM) approved project-specific amendment to the California Desert Conservation Area Plan (CDCA) permitting the construction/operation of the proposed Palen Solar Power Project.

- 82. Page 15, Finding of Fact 1, change as follows:**

The proposed project area is located on public land (federal land) administered by the BLM) except for a 40 acre parcel in private ownership under the County of Riverside’s jurisdiction. The applicant has applied for a Right-of-Way grant from the BLM, and that application is currently under review by the BLM. The Right of Way grant is required for applicant to construct the project.

- 83. Page 16, Condition of Certification **LAND-1**, change to read as follows:**

Prior to the start of construction, the Applicant shall provide to the Compliance Project Manager (CPM) documentation of the U.S. Bureau of

Land Management (BLM) Right-of-Way grant and the BLM-approved project-specific amendment to the California Desert Conservation Area Plan (CDCA) permitting the construction/operation of the proposed Palen Solar Power Project.

84. Page 17, delete Condition of Certification LAND-2.

TRAFFIC AND TRANSPORTATION

85. Page 1, first paragraph, change as follows:

The record contains an analysis of: ~~(1) potential problems related to construction and operational traffic; and (2) the possible effect of project operations on local airport flight traffic.~~

86. Page 1, second paragraph, third sentence:

Add a period at the end of the sentence.

87. Page 1, second paragraph, fourth sentence, change as follows:

The Corn Springs Road extension would be about 1,350 feet long and would run east from just north of the I-10 Corn Springs Road entrance/exit ramps to the project site entrance. ~~From the existing dead end, Corn Springs Road would be extended about 1,350 feet to the north to connect with a new access road running east into the project site.~~ (Ex. 300, p. C.10-2.)

88. Page 2, last paragraph, change as follows:

There is no rail or bus service near the project and bicycle and pedestrian ~~faculties~~ facilities are “minimal-to-none”. There are no ~~nearby~~ airports sufficiently close to the project (within 20,000 feet or less) to require FAA notification. (Ex. 300, p. C.10-4.)

89. Page 6, first paragraph, change “1141” to “1145, ” and “2282” to “2290.”

90. Page 9, first paragraph, change as follows:

Access to the site for emergency services vehicles is adequate given that an emergency vehicle could reach the project property directly from I-10 at Corn Springs Road. The proposed project operation also would also not alter rail transportation. No rail tracks exist on or near the project site.

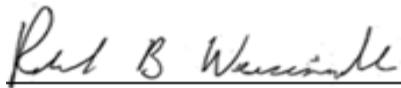
91. Page 10, first paragraph, change as follows:

The evidence establishes that the major glint or glare issue for motorists would be from

specular reflections from the mirrors in the mornings and evenings during the summer when the sun rises and sets to the north. During these times, there may be glare visible to motorists driving west (during the morning) or east (during the evening) from the south end of the trough collectors or when the collectors are moving off-axis to or ~~from~~wards the stow position.

92. Page 13, lines 1 and 2, change "1141" to "1145."

Dated: December 10, 2010 at Sacramento, California.



ROBERT B. WEISENMILLER
Commissioner and Presiding Member
Palen Solar AFC Committee



KAREN DOUGLAS
Chairman and Associate Member
Palen Solar AFC Committee